

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): Synthesis furnace (1) having a furnace chamber (3) surrounded by a circumferential furnace wall (2), in which a plurality of burners (5) disposed essentially in one plane, with burner exit direction directed downward, whereby at least the outer burners (5) disposed in the region of the furnace wall (2) have a burner exit direction (R) that is inclined relative to the vertical, leading away from the center of the furnace, and in which a plurality of reaction tubes (4) disposed essentially vertically and parallel to one another are disposed, the reaction tubes being heated from the outside, by means of the firing burners (5),

wherein the incline of the burner exit directions (R) of the individual ~~burners (5)~~ burner rows is different, and wherein the incline of the burner exit directions (R) of the burner rows increases toward the outside, toward the furnace wall (2), proceeding from the center of the furnace.

Claims 2-3 (Canceled).

Claim 4 (Currently Amended): Synthesis furnace according to claim 1, wherein the incline angle, proceeding from the center of the furnace, lies between 0 and 10°, ~~preferably between 0 and 5°.~~

Claim 5 (Previously Presented): Synthesis furnace according to claim 1, wherein the burners (5) are installed with inclined burner exit direction (R), in total, and/or their burner exit opening is disposed at an incline.

Claim 6 (Previously Presented): Synthesis furnace according to claim 5, wherein the incline of the burner exit directions (R) is adjustable.

Claim 7 (Currently Amended): Synthesis furnace according to claim 6, ~~wherein in order to adjust the inclines, further~~ comprising a control device that takes the operating parameters of the synthesis furnace into account is provided for adjusting the inclines.